

Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

- **Course Number:** 2278
- **Length:** 5 Day(s)

Certification Exam

This course will help you prepare for the following Microsoft Certified Professional exam:

- **Exam 70-293:** Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Course Overview

The goal of this five-day course is to provide students with the knowledge and skills necessary to plan and maintain a Windows Server 2003 network infrastructure.

This is the fifth course in the Windows Server 2003 Systems Engineer curriculum.

Prerequisites

Before attending this course, students must have completed:

- Course 2277: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services, or have equivalent knowledge and skills.

Audience

This course is appropriate for individuals employed as or seeking a position as a systems engineer. This course is also appropriate for individuals currently supporting a competitive platform who want to enhance their job skills on Microsoft Windows Server 2003 networking.

The entry criteria for this course include individuals who are:

- IT professionals and new to Windows Server 2003 network implementation.
- Preparing for the Microsoft Certified Systems Engineer (MCSE) certification.

Course Outline

Level 1
Binary Basics

- 1.1 Decimal Numbering
- 1.2 Binary Numbering
- 1.3 Binary Decimal Conversions
- Subnet Masks
- 2.1 Network Classes
- 2.2 What is a Subnet Mask
- 2.3 Default Subnet Masks
- Custom Subnetting 48m 50s
- 3.1 The Need for Subnetting
- 3.2 Simple Class A Subnetting
- 3.3 Simple Class B Subnetting
- Level 2
- Subnetting
- 1.1 Class B Subnetting
- 1.2 Subnetting Gotchas
- 1.3 Class A Subnetting
- Assigning Address
- 2.1 Subnet Structure
- 2.2 Address Assignments
- 2.3 Class C Subnetting
- 2.4 Class C Assignments
- Solving Addressing Problems
- 3.1 Private Address
- 3.2 Variable
- 3.3 Classless Inter-Domain Routing
- Level 3
- Network Topology
- 1.1 Networking Devices
- 1.2 Server Locations
- 1.3 Internet Connectivity
- 1.4 Monitoring Traffic
- 1.5 Troubleshooting
- Lab - Install NAT
- Lab - Network Monitor
- Name Resolution
- 2.1 Overview
- 2.2 Zone File Selection
- 2.3 Forwarding Option
- 2.4 DNS Security
- 2.5 Troubleshooting
- 2.6 WINS
- Lab - Recursive Query
- Lab - Install Wins Server
- Lab - DNS Forwarded Test Recursive
- Level 4
- Clustering
- 1.1 Clustering Overview
- 1.2 Server Clusters
- 1.3 Network Load Balancing Clusters
- Lab - Install Cluster Server
- Resource Availability
- 2.1 Backups
- 2.2 Automated System Recovery
- 2.3 Shadow Copies
- 2.4 Controlling System Bottlenecks
- Lab - Assign Permissions
- Lab - Create Cluster File
- Lab - Install Cluster Server
- Lab - Setup Cluster Network Connections
- Lab - Setup SCSI Shared Storage
- Lab - Test Cluster File
- Level 5

Server Security

1.1 Edition Selection

1.2 Installation Security

1.3 Server Roles

1.4 Security Updates

Lab - Add Server Role

Lab Security Analyzer

Routing

2.1 Route Planning

2.2 Protocol Selection

2.3 Troubleshooting

Lab - Setup Router RIP2

Network Security

3.1 Protocol Security

3.2 Remote Access

3.3 IPSEC

3.4 Certifications

3.5 Managing Security

Lab - RAS Access Policy

Lab - Working with Security Event Logs

